

EFFCI-GMP-RP30132  
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**DATASHEET**

# Acetyl Hexapeptide-1 Stock Solution

Cat. No.: EFFCI-GMP-RP30132

## Overview

<b>Synonyms</b>	GS-PepFirming™ Acetyl Hexapeptide-1 Stock Solution
<b>Description</b>	GS-PepFirming™ Acetyl Hexapeptide-1 Stock Solution, with active component - Acetyl Hexapeptide-1, is a botulinum toxin-like peptide obtained by in-silico design. It is widely used in antiwrinkle products with higher activity and lower side effects

## Properties

<b>Form</b>	Stock Solution
<b>Storage</b>	For short term storage, it is recommended to store in a cool, dark and clean place to ensure a shelf life of six months. For long-term storage, it is recommended to store at 4°C, and shelf life can be extended to 24 months. This product is a liquid product and should be placed upward to avoid extrusion and leakage. During the storage period, try to keep the cap sealed, once opened, should be used as soon as possible.
<b>Note</b>	The product can be incorporated at the final stage of the manufacturing product, provided the temperature is below 40°C. It is recommended that 2 to 5% of the solution is present in the final formulation in order to obtain significant activity.

## Applications

Expression wrinkles are some of the first signs of aging. They are mainly caused by the excessive stimulation of the muscle fibers in the face, which pulls the skin inwards and causes wrinkles to appear on the skin surface. Thus, by attenuating the muscle contraction, the appearance of these wrinkles can be minimized. Muscles are contracted when they receive a neurotransmitter released from inside a vesicle of the motor neuron. This process is mediated by those specific proteins found in the motor neuron, the vesicle-associated membrane protein (VAMP), Munc18 protein, the membrane-associated protein (syntaxin) and synaptosomal associated protein 25 (SNAP-25). Munc18 binds to syntaxin protein, then to SNAP-25 and VAMP forming a ternary structure known as the SNARE complex, which is like a cellular hook that captures the vesicles and fuses them with the membrane. Once the fusion of these vesicles occurs, acetylcholine (ACh) is released into the synapse between nerve and muscle cells. Then, ACh binds to specific receptors called acetylcholine receptors (AChR) located on the surface of muscle cells, finally triggering muscle contraction. Acetyl Hexapeptide-1 competing with specific sequences located in the surface of interaction between Munc18 and Syntaxin -1 allows an interference or inhibition of said complex Munc18-Syntaxin-1 and, hence an inhibition of neurotransmitter release. If the SNARE complex is slightly destabilized, the vesicle cannot release neurotransmitters efficiently and therefore muscle contraction is attenuated, preventing the formation of lines and wrinkles. It can be incorporated in cosmetic formulations such as emulsions, gels, essence, eye cream, etc., where removal of the deep lines or wrinkles in the forehead or around the eyes area is desired.

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